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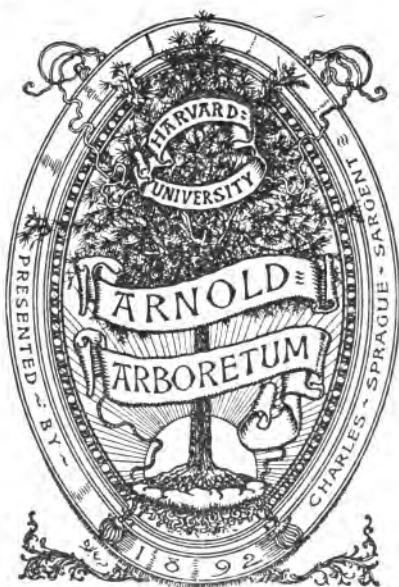
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ASCLEPIADACEÆ
FORMOSANO-LIUKIUENSES.

Auctore

J. MATSUMURA.
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TŌKYŌ.

1898.

Asclepiadaceae Formosano- Liukienses.

Auctore

J. Matsumura.

Asclepias curassavica L.

Liukiu: ad Oogimi (ipse); Formosa: prope Akoo (H. Kawakami anno 1895), ad Takaw (C. Owatari anno 1896).

Cynanchum atratum Bunge, Enum. pl. in China. No. 251.

Vincetoxicum atratum Morr. et Decne; D. C. Prodr. VIII. p. 253; Maxim. Mel. Biol. IX. p. 789.

Formosa: ad Hsin-chu (T. Makino anno 1896).

Cynanchum (Vincetoxicum) **villosum** Matsumura sp. nov.

Habitu formam minorem C. japonici *Hemsl.* revocans, usque 8 poll., vulgo 5-6 poll. altum. Caulis sursum tomentosus basi subramosus. Folia brevissime petiolata, a elliptico retuso in oblongum obovatum variantia, apice mucronulata vel apiculata, supra parce subtus densius villosa vel glabrescentia, basi rotundata vel attenuata. Cymae sessiles. Flores viridilutei, vix 8 mm. diametro. Calycis lobi ovato-oblongi acutiusculi glabrescentes. Corolla subcampanulato-rotata; lobi elliptico-obtusi utrinque glabri; corona staminea atropurpurea 5-partita carnosula gynostegio duplo brevior; lobis ovato-globosis apice obtusis; membrana antherae rotundata. Stigma vertice concavum. Folliculi valde villosi, immaturi 20 mm. longi, 3 mm. lati.

Folia suppetentia maxima 35 mm. longa, 28 mm. lata. Petioli 2 mm. longi. Pedicelli fructiferi 5 mm. longi, glabrescentes.

Insula Okinawa archipelagi Liu-kiu legit Y. Tashiro specimina fructifera Maio anno 1887; in eadem insula ad Onnah legi sp. fl. versus Aprilis exitum anno 1897.

Adnot. **Cynanchum** (Vincetoxicum) **nipponicum** Matsumura sp. nov.

Suberectum vel alte volubile. Caulis unifariam puberulus. Folia ima in forma suberecta minute reducta, superiora oblongo-lanceolata acuminata vel oblongo-obtusa vel brevi acuta, petiolata, basi rotundata subcordata, supra versus margines et ad nervos molliter puberula, subtus densius

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villosula, nervis arcuatis utrisque lateribus 8. Cymae vulgo sessiles foliis breviores, pauciflorae, interdum pedunculatae, 18 mm. longae. Flores 10–13 mm. diametro, brunneolutescentes dicuntur (ex C. Owatari). Calycis lobi ovato-acuti, vel ovato-lanceolati, ciliati. Corolla subcampanulato-rotata, lobis ovatis acutiusculis, vel obtusis, extus et intus glabris; corona annularis fusca, alte 5-loba, lobis ovatis apice liberis medium gynostegii attingentibus; membrana antherae late ovata; pollinia elliptica ovata vel ovalia, subtransversa, corpusculae magnae oblongae pollinii majores, caudiculis incrassatis dilatatis infra apicem pollinae affixis. Stigma depressum. Folliculi immaturi 46 mm. longi, 5 mm. lati, glabri.

Folia suppetentia maxima 85 mm. longa, 22 mm. lata. Petioli 2–5 mm. longi, villosi. Cymae 1–3 florum; pedicelli 3 mm. longi, villosi.

Hab. in Japonia media: tractu Nikko legit K. Sawada anno 1878, Junio fl.; tractu Tsukuba legit C. Owatari fl. et fr. immat. anno 1895.

Ex affinitatibus Vincet. ascyrifolii *Fr. et Sav.* V. ambigui *Max.* V. volubilis *Max.*, a primo differt foliis acuminatis nec glaucescentibus nec supra punctulatis, caulibus erectis vel volubilibus, unifariam puberulis, a posterioribus duobus floribus intus glabris, polliniis quam corpusculas minoribus, caudiculis incrassatis.

Cynanchum formosanum *Hemsl.* Journ. Linn. Soc. vol. XXVI. p. 106.

Cynoctonum formosanum *Max.* Mel. Biol. IX. p. 801.

Formosa: Kelung (T. Makino, Oct. fl. et fr. anno 1896); inter Toofun et Sinkooshaw (C. Owatari Decemb. fr. anno 1897).

Gymnema affine, *Decne.* D. C. Prodr. VIII. p. 622; Benth Fl. Hongk. p. 227; Max. Mel. Biol. IX. p. 811; Hemsl. Journ. Linn. Soc. vol. XXVI. p. 112.

Formosa: ad Tamsui (T. Makino, Novemb. fr. anno 1896).

Tylophora hispida *Decne.* D. C. Prodr. VIII. p. 610; Benth. Fl. Hongk. p. 225; Max. Mel. Biol. IX. p. 813; Hemsl. Journ. Linn. Soc. vol. XXVI. p. 113.

Formosa: Kelung (T. Makino, Novemb. fl. anno 1896); Tamsui (T. Makino, Novemb. fr. anno 1896).

Tylophora liukuensis *Matsumura* sp. nov.

Tylophorae zeylanicae *Decne.* ex descript. Decn.⁽¹⁾ et Hook.⁽²⁾ affinis, a qua

1) De Candolle- Prodr. VIII, p. 608.

2) J. D. Hooker- the Flora of British India, IV, p. 42.

differt nervis mediis foliorum petiolisque supra puberulis, floribus majoribus, seminibus ovato-oblongis.

Volubilis, orgyalis. Caulis praeter nodos ramosque juniores interdum pilosos ex toto glabrus. Folia carnosula opposita peiolata (5–13 mm.), ovato-oblonga, oblongo-lanceolata acuta rarius obtusa, apiculata vel cuspidata basi rotundata rarius subcordata, supra praeter nervum medium et petiolum canaliculatum puberulum glabra, nervis paucis inconspicuis, ad basin laminae glandulis paucis minutis instructa. Cymae foliis multo longiores, pedunculis interpetiolaribus, ramis compositis divaricatis glabris multifloris. Flores atropurpurei, 9 mm. diametro; calycis lobi ovato-acuti subpuberuli; corolla rotata, lobis ovato-acutis vel obtuso-emarginatis multistriatis; corona supra medium antherae affixa, lobis ovato-acutiusculis carnosulis; membrana antherae suborbicularis retusa basi cordata; pollinia ellipsoidea transversa quam corpusculos ellipticas majora, caudiculis filiformibus polliniis brevioribus. Stigma depresso-subconvexum. Folliculi maturi ovato-lineares acuminati glabri, 84 mm. longi. Semina ovato-oblonga 8 mm. longa, 3 mm. lata, subplana sursum uno latere concava uninervata; coma 30 mm. longa.

Folia maxima suppetentia 100 mm. longa, 35 mm. lata.

Cymae 120 mm. longae, 90–130 mm. latae. Pedunculi 35–40 mm. longi; pedicelli vulgo 4–7 mm. longi.

In insula Okinawa archipelagi Liukiu legit Y. Tashiro sp. fr. Augusto 1887; in tractu Kunchan ejusdem insulae legit S. Tanaka sp. fl. nondum explicatum Maio 1890; in Yontanzan ejusdem insulae mediae legi sp. fl. Aprili 1897.

Hoya carnosula R. Br. Decne in D. C. Prodr. VIII. p. 636; Benth. Fl. Hongk. p. 228; Max. Mel. Biol. IX. p. 819; Engl. Bot. Jahrb. VI. p. 65; Hemsl. Journ. Linn. Soc. XXVI. p. 116.

Liukiu: ad rupes prope Yontanzan insulae Okinawa (ipse fl. Aprili anno 1897); ad Shalyotoo Formosae borealis, legit T. Makino spec. sterl. anno 1896.

Kamisashi-gusa (Nom. indigen. Liukiu).

Marsdenia tinctoria R. Br. D. C. Prodr. VIII. p. 615; Benth. Fl. Hongk. p. 226; Max. Mel. Biol. IX. p. 818; Hook. Fl. Brit. Ind. IV. p. 34; Wight, Icon. x. 589; Hemsl. Journ. Linn. Soc. vol. XXVI. p. 114.

Liu-kiu: insula Okinawa (Y. Tashiro, anno 1887; in eodem loco (ipse fl. Maio, anno 1897); Formosa: ad Kelung (T. Makino, Oct. fr. anno 1896).

Flores in specimine nostro vix 4 mm. alti, in sicco subindigotici.

Marsdenia tomentosa *Morr. et Decne.* D. C. Prodr. VIII. p. 617; Sieb. et Zucc. Fl. Jap. fam. nat. No. 556; Miq. Prol. p. 61; Max. Mel. Biol. IX. p. 817.

Liu-kiu: insula Okinawa (Y. Tashiro anno 1887).







